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United States Government **Department of Energy**

memorandum

DATE: March 12, 2001

REPLY TO ATTN OF: Office of Environmental Policy and Guidance:Koss:6-7964

SUBJECT: Final Clean Air Act Emission Standards for New Sources, and Emission Guidelines for Existing Small Municipal Waste Combustion Units

TO: Distribution

On December 6, 2000, the Environmental Protection Agency (EPA) issued two final rules reestablishing air emission standards for small municipal waste combustion (MWC) units. The first rule (65 *FR* 76350) contains new source performance standards (NSPS) for new, small MWC units. The second rule (65 *FR* 76378) contains emission guidelines for existing, small MWC units. The guidelines are to be implemented by States with affected facilities. Emission standards for new and existing small MWC units were originally promulgated in 1995, but were vacated by the U.S. Court of Appeals for the District of Columbia Circuit in 1997.

A small MWC unit is an incinerator, or a waste-to-energy facility (which generates electricity or steam from the combustion of garbage), with the capacity to burn between 35 and 250 tons of garbage per day. (EPA will establish a future rule that will regulate MWC units with a capacity of less than 35 tons per day.) The December 2000 rules apply to the burning of municipal waste or trash, including discards from office buildings. Further details on these regulations, including applicability criteria, are provided in the attachment. The NSPS for new units are available on the Office of Environmental Policy and Guidance (EH-41) Home Page at: *http://www.eh.doe.gov/oepa/rules/65/65fr76350.pdf*. The emission guidelines for existing units are available at: *http://www.eh.doe.gov/oepa/rules/65/65fr76378.pdf*.

Questions concerning these rules should be directed to Ted Koss of my staff (*theodore.koss@eh.doe.gov*; 202-586-7964.)

(original signed by Andrew Wallo)

Andrew Wallo III
Director
Air, Water and Radiation Division

Attachment

EH-41
3/9/01

Final New Source Performance Standards and Emission Guidelines for Small Municipal Waste Combustion Units

On December 6, 2000, the Environmental Protection Agency (EPA) issued two final rules reestablishing air emission standards for small municipal waste combustion (MWC) units. The first rule (65 *FR* 76350) contains new source performance standards (NSPS) for new, small MWC units. The second rule (65 *FR* 76378) contains emission guidelines for existing, small MWC units.

<u>New Source Performance Standards for New MWC Units</u>

This rule establishes a new Subpart AAAA to 40 *CFR* 60. The rule, which will become effective June 6, 2001, applies to MWC units:

- with a design combustion capacity of 35 to 250 tons per day of municipal solid waste or refuse-derived fuel, and
- for which construction was commenced after August 30, 1999 or for which reconstruction or modification was commenced after June 6, 2001.

Municipal solid waste is defined in the rule to be

> household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste does include yard waste and refuse-derived fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff) (40 *CFR* 60.1465).

Refuse-derived fuel is defined in the rule to be

> a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification to include (1) low-density fluff refuse-derived fuel through densified refuse-derived fuel, and (2) pelletized refuse-derived fuel (40 *CFR* 60.1465).

Units that combust less than 11 tons per day, small power production facilities, cogeneration facilities, materials recovery units, hazardous waste combustion units, and co-fired combustors that limit the combustion of municipal solid waste to 30%

of the total fuel input by weight are generally exempt from the rule, although there are specific requirements that must be met to qualify for each exemption (40 *CFR* 60.1020).

In some cases, separate guidelines are established for Class I units (units with an aggregate plant combustion capacity greater than 250 tons per day) and Class II units (units with an aggregate plant combustion capacity less than or equal to 250 tons per day).

Subpart AAAA contains requirements for: 1) preconstruction activities including a materials separation plan and a siting analysis; 2) good combustion practices including operator training, operator certification, and operating requirements; 3) emission limits; 4) monitoring and stack testing; and 5) recordkeeping and reporting requirements. Emission limits are established for organics (dioxins/furans); metals (cadmium, lead, mercury, and particulate matter); acid gases (hydrogen chloride, sulfur dioxide, and nitrogen oxides); carbon monoxide; opacity; and fugitive ash.

Emission Guidelines for Existing Small MWC Units

This rule establishes a new Subpart BBBB to 40 *CFR* 60. The rule was effective as of February 5, 2001. The rule sets emission guidelines for small MWCs on which construction was commenced on or before August 30, 1999. States with small MWCs are directed to submit a plan to EPA by December 6, 2001 that implements the emission guidelines (40 *CFR* 60.1505). State plans must be at least as protective as the Subpart BBBB guidelines. The State plans are to require compliance by the earlier of December 6, 2005 or three years after the effective date of the plan approval (40 *CFR* 60.1535).

State plans are to cover MWC units with the capacity to combust 35 to 250 tons per day of municipal solid waste or refuse-derived fuel (40 *CFR* 60.1550). Units that combust less than 11 tons per day, small power production facilities, cogeneration facilities, materials recovery units, hazardous waste combustion units, and co-fired combustors that limit the combustion of municipal solid waste to 30% of the total fuel input by weight are generally exempt from the emission guidelines, although there are specific requirements that must be met to qualify for each exemption (40 *CFR* 60.1555).

The definitions of municipal solid waste and refuse-derived fuel are the same as the definitions for these terms in the NSPS in 40 *CFR* 60 Subpart AAAA (40 *CFR* 60.1940).

In some cases, separate guidelines are established for Class I units (units with an aggregate plant combustion capacity greater than 250 tons per day) and Class II units (units with an aggregate plant combustion capacity less than or equal to 250 tons per day).

The emission guidelines contain five components: 1) increments of progress toward compliance; 2) good combustion practices including operator training, operator certification, and operating requirements; 3) emission limits; 4) monitoring and

stack testing; and 5) recordkeeping and reporting (40 *CFR* 60.1580). Continuous emission monitoring systems are required for oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide. Class I units must also have a continuous emission monitoring system for nitrogen oxides.

The elements of a showing of increments of progress for Class I units are submission of a final control plan, notification of retrofit contract award, initiation of onsite construction, completion of onsite construction, and achieving final compliance (40 *CFR* 60.1585). For Class II units, the elements of a showing of increments of progress are submission of a final control plan and achieving final compliance.

The pollutants regulated under the guidelines are the same as those regulated under the Subpart AAAA NSPS. Emission limits for Class I sources are set out in Tables 2 and 3 of Subpart BBBB. Emission limits for Class II sources are set out in Table 4 of Subpart BBBB. Carbon monoxide emission limits for all small MWCs are set out in Table 5 of Subpart BBBB.